

Remarks

Claims 1-30 are pending. With this Response, claims 1, 6, 9, 22, 27, 28, and 29 are amended; claims 5 and 30 are canceled; and new claims 31 and 32 are added.

Upon entry of the current amendments, claims 1-4, 6-29 and 31-32 remain for consideration.

Applicants respectfully request reconsideration and further examination of the application in view of the amendments above and remarks below.

A telephonic interview occurred between Applicant's representative, the undersigned, and Examiner Rutledge, on October 25, 2006. Applicants thank Examiner Rutledge for that opportunity to discuss the pending claims and outstanding rejections. In that interview, the Examiner and the undersigned discussed the cited Sugawara reference and possible amendments to certain claims to further distinguish over that reference, e.g., in consideration of the fact that Sugawara describes interruptions based on manual "key operations." Also discussed was the Nguyen reference 2001/0012971, paragraphs [0044] and [0045]. No clear resolution was reached.

Support for the amended and added claims can be found in the specification as originally filed, including the following:

Support for amended claims 1 and 9 can be found, e.g., at original claim 6.

Support for amended claim 6 can be found, e.g., at page 22, lines 3-9, of the specification as filed.

Support for the amendment of claims 22 and 29 can be found, e.g., at page 22 lines 5-8.

Support for the amendments of claims 27 and 28 can be found, e.g., at figure 8.

Support for added claims 31 and 32 can be found, e.g., at original claims 16 and 17.

Amendment to the Abstract

The abstract has been amended.

Claim Rejections Under 35 U.S.C. §103

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai et al. (6,168,665) in view of Sugawara et al., and, apparently, Nguyen (6,168,672).

Claims 1-9

The rejection of claims 1 and 9, and claims 2-8, dependent on claim 1, is overcome by amendment to independent claims 1 and 9.

Claims 1 and 9 have been amended to recite that the interrupt signal is a hardware interrupt signal. A hardware interrupt signal, as opposed to other types of signals, is discussed at the top of page 22 of the specification as originally filed. A hardware interrupt signal is a signal from a piece of hardware and is different from other types of electronic control signals, such as a software interrupt signal or a manual interrupt signal.

The primary reference, Sakai, does not provide every operation or action of process steps, e.g., does not show a hardware interrupt. The secondary references fail to remedy this shortcoming of the Sakai reference. Thus, claims 1-9 distinguish over the cited references, e.g., Sakai combined with either Sugawara or Nguyen, with respect to the feature of a hardware interrupt.

The Sugawara reference cited by the examiner does not teach or suggest a hardware interrupt signal. At column 22, lines 5-28, the reference discusses an “interrupt program” in such terms as being executed by “the manual key operation of the computer during the execution of the synthesis procedure program,” and “by key operations from the set time by the synthesis procedure program.” These passages and the related discussion do not identify a signal that originates from a piece of hardware, and therefore is not believed to describe, teach, or suggest, the use of hardware interrupt signal as recited in claims 1-9.

The Nguyen reference has not been shown to teach or suggest a hardware interrupt signal.

The rejection of claims 1 and 9, and dependent claims 2-8, is overcome by the amendment to claims 1 and 9 to recite a hardware interrupt signal, and the rejections should be withdrawn.

Claim 10

The rejection of claim 10 is traversed.

Claim 10 recites a method that includes the feature of

executing process commands at durations measured in parallel from an earlier process event. (emphasis mine.)

Claim 10, reciting this feature of durations measured in parallel from an earlier process event, stands summarily rejected as obvious in view of the cited references, without any reasoned analysis of how the feature of “durations measured in parallel from an earlier process event” is taught or suggested by the prior art.

In this regard, the entire analysis and basis of rejection of claim 10 is that: “There are various processes that will be controlled at the same time such as monitoring and dispensing or stopping; dispensing and accelerating, etc.”

Even so, neither the reference nor the Office action shows any teaching or suggestion to use durations measured in parallel from an earlier process event. This feature is shown in an exemplary form at Applicants’ figure 8, with a comparison to “non-parallel” timers at figure 2. As described in related text, the parallel timers of figure 8 which are measured (i.e., initiated or started) from the same earlier process event, advantageously result in reduced timing variability compared to the serial timers of figure 2.

Applicants respectfully submit that the requisite process of presenting a rejection under 35 U.S.C. 103, has not been achieved with respect to the outstanding rejection of claim 10. MPEP 706.02(j) states that after identifying relevant teachings of the prior art, a rejection identify differences in the claims compared to the applied references, provide an explanation of the proposed modification of the references that would have caused one of skill to arrive at the claimed subject matter, and identify motivation to make such changes. Further, a requirement of establishing a *prima facie* case of obviousness is that the prior art must teach or suggest all limitations of the claims.

The outstanding Office Action does not follow the requisite procedure because the rejection fails to show in accordance with MPEP 706.02(j), that the cited prior art references would have caused one of skill to arrive at the claimed subject matter of claim 10, including all features of claim 10, including a method that executes *process commands at durations measured in parallel from an earlier process event*.

The Office action does not mention this element of claim 10, and therefore fails to present a *prima facie* case of obviousness. Applicants request that the rejection of claim 10 be

withdrawn, or, in the alternative if a rejection of claim 10 is maintained, that the basis for the rejection be provided in accordance with MPEP 706.02(j) in a non-final Office action that allows Applicants the ability to respond to any such presented rejection.

The above considerations apply identically to all of claims 11-20, which are dependent on claim 10 and incorporate the features of claim 10.

Claim 21

The rejection of claim 21 is traversed.

The Office action does not include the requisite analysis of the features of claim 21 as described at MPEP 706.02(j).

In specific, the Office action fails to include a reasoned analysis as to how or why one of skill would have arrived at the method of claim 21 having its specific combination of features, including a hardware interrupt. The Office action does not address the claimed feature of a “hardware interrupt.” As discussed in Applicants’ disclosure, and herein, various types of interrupt signals are known, and a hardware interrupt is not the same or equivalent to other types. By omitting a discussion of this feature of claim 21, the rejection fails to show that all elements of claim 21 are taught or suggested by the prior art.

Applicants request that the rejection of claim 21 be withdrawn, or, in the alternative if a rejection of claim 21 is maintained that the basis for the rejection be provided in accordance with MPEP 706.02(j) in a non-final office action that allows Applicants the ability to respond to any such presented rejection.

Claim 22

The rejection of claims 22-26 is overcome by amendment to independent claim 22.

Claim 22 has been amended to recite that serial process control is interrupted by a hardware interrupt signal. This is similar to the amendment to independent claims 1 and 9. The reasoning above regarding how this amendment overcomes the rejection of claims 1 and 9 also applies also to claim 22. Thus, based on the discussion above with respect to claims 1-9, the rejection of claims 22-26 should also be withdrawn.

Claims 27 and 28

The rejection of claims 27 and 28 is overcome by amendment.

Claims 27 and 28 are amended to recite a method of controlling a process, the method comprising initiating two process commands at durations measured in parallel from one earlier process event.

The analysis of this feature of claims 27 and 28 is similar to the analysis above of claim 10, and the same analysis of claim 10 applies to claims 27 and 28.

In specific, claims 27 and 28 include a feature of initiating process commands at durations measured in parallel from one earlier process event. Claim 27 stands rejected as obvious in view of the cited references, but the Office action lacks a discussion of how the prior art teaches or suggests measuring two different durations from a time of a single (i.e. ("one")) earlier process event.

At page 3 of the Office action, the rejection indicates with respect to claim 27, that "There are various processes that will be controlled at the same time such as monitoring and dispensing or stopping; dispensing and accelerating, etc." There is no analysis of the feature of durations measured from one earlier process event.

Regarding claim 28, the rejection also fails to mention how a prior art reference is considered to teach or suggest multiple durations measured from the same (i.e., "one") earlier process event.

Again the Office action does not address specific claim features, as noted, of claims 27 and 28, and the rejection of claims 27 and 28 does not support *prima facie* obviousness of the claims.

New Claims 31 and 32

Subject matter of pending claims 16 and 17 has included in added claims 31 and 32. That subject matter is the process event that is used as an interrupt (in claim 31) and process commands that are executed upon interruption (claim 32).

Similar to above, the Office action fails to provide a *prima facie* rejection of the subject matter of these claims. The Office action includes some analysis of features of pending claims 7 and 8 (containing some of the same features), stating that acceleration and deceleration of a

rotating chuck are "inherent," and that triggering start and termination of dispensing of coating or developing solution are also "inherent."

To the extent that the analysis of claims 7 and 8 would apply to new claims 31 and 32, the analysis is faulty in that it again does not comply with MPEP 706.02(j). For example, an assertion that a feature is "inherent" is not a substitute for a reasoned analysis and a showing of a teaching or suggestion required to support an obviousness rejection. A rejection based on inherency -- properly applied -- must be based on a result that would necessarily result from prior art, not on a result that may possibly occur. The cited references do not require, necessarily, that the features of claims 31 and 32 result.

Conclusion

It is respectfully submitted that the claims and the present application are in condition for allowance. Approval of the application and allowance of the claims are earnestly solicited.

In the event that a phone conference between the Examiner and the Applicant's undersigned attorney would help resolve any remaining issues in the application, the Examiner is invited to contact the undersigned at (651) 275-9806.

Respectfully Submitted,

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